

The application is directed to a unique combination of elements that cooperate together to solve a significant problem in the livestock industry which is that of cleaning feedlots of watery and sometimes frozen or caked on manure that is strongly adhered to the concrete surfaces. As has been argued previously none of the prior art cited to date is capable of adequately performing this task. The cited prior art scrapers, which are intended, for use on concrete all use rubber or rubber and metal to engage the surface. None use a semi-circular metal blade solely to scrape a concrete surface. Along with the other unique structure Applicants' use a non-hardened metal blade which gradually wears away but does not otherwise cause damage to the scraper, the concrete surface or the towing vehicle. It may be operated at relatively high speeds even over a rough concrete surface that would severely damage conventional sharpened straight earth working scraper blades, such as that of the McGee patent. The prior art simply fails to suggest or teach the unique combination claimed.

The prior art scrapers cited by the examiner for use on concrete have attempted to use segments of rubber tires or metal blades with rubber sections bolted thereto as in the Mensch patents. As has been pointed out, the rubber blades merely deflect over material that is frozen or strongly adhered to the concrete. Further, the rubber blades produce a slippery surface that is dangerous for animals to walk on. Conventional straight concavely curved hardened and sharpened steel blades have a tendency to catch on or "hop" over surface imperfections potentially causing serious damage to the blade and to the entire scraper.

Applicants' semi-circular non-hardened blade having a flat bottom edge surface can be operated at relatively high speeds over rough concrete without the danger of damaging the blade or scraper as was demonstrated to the examiner in a video in an earlier application. The non-hardened steel permits the metal to gradually wear away in a sacrificial manner over a course of time. Such also enables the usage of relatively inexpensive steel, which reduces the cost of manufacture.

THE REJECTIONS

Claims 1-11 have been rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite. These claims have been rewritten to correct any indefiniteness.

The prior art references cited by the examiner are dissimilar in structure and function and all are lacking in certain important features. The examiner ignores the purpose and intent of the references and attempts to combine the pictures to reconstruct a composite from Applicants' disclosure. The examiner has used multiple prior art rejections to reject the claims apparently being unconvinced of the appropriateness of any single rejection. An argument showing the inadequacies of certain of the references used in the various repeated combinations should suffice.

Best of Farm Show '89 discloses a scraper formed from a used tractor tire. The many inadequacies of this structure have been pointed out previously. In addition to

leaving a slippery surface it cannot remove material that is strongly adhered to a concrete surface. The implied teaching of this publication is that a rubber blade must be used if a concrete surface is to be cleaned

The Gruner patent while disclosing a metal blade is designed to construct crowned roads. The forward corners of the chain drawn blade dig into the earth, which then passes rearwardly along and under the blade to form ditches adjacent a crowned road surface. This structure would be inoperative to scrape concrete surfaces.

There is absolutely no reason or suggestion of combining the Best of Farm Show and Gruner for use on a concrete surface. As stated it is apparent that the Gruner structure would be useless on a concrete surface and provides no suggestion of overcoming the implied teaching of Best of Farm Show that rubber blades must be used to clean concrete surfaces. The examiner simply states that it would have been obvious to combine these without any reason, except applicants' disclosure, for doing so.

Each of the additional rejections citing these publications also fails for the same reasons.

McGee discloses a conventional three-point hitch mounted earth moving hardened and sharpened digging blade which would soon be ruined if used on an uneven concrete surface. The unsuitableness of such scrapers apparently prompted the appearance of rubber tire scraper of Best of Farm Show.

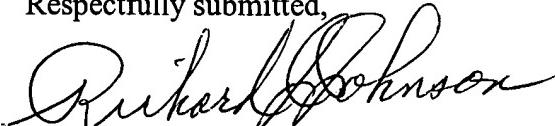
The examiner's attempt to find obviousness in replacing the chains for drawing the scraper of Gunner with the three-point hitch of McGee ignores the fact that the Gruner structure is intended to float while the forward corners excavate soil and dispense

it under the blade. Such chain hitch operates considerably differently from a three-point hitch wherein a tool is raised and lowered while remaining parallel to the ground. In this case the hitches are clearly not equivalent as alleged by the examiner. The blade of Gruner would operate quite differently from the way that it was intended and would require significant reengineering to be operative.

The rejection of the claims based on the ground of Res Judicata is not seen to be appropriate in that the claims in this CIP are different in scope. As a minimum they include the limitation that the blade is constructed from non-hardened metal which permits the blade to gradually wear away in a sacrificial manner and which apparently is one of the primary reason why the claimed invention has proven to be so effective. That was not an issue in the appealed claims and has not been shown by the examiner to be old in this art.

The claims are now believed to clear and definite, avoids all of the art of record, and define a structure that fills a long felt need. The invention found early acceptance in the art as evidenced by affidavits submitted in an earlier application. It is time that applicants' be given deserved protection under the patent statutes for designing an uncomplicated but significant contribution in the art. Allowance of all of the claims is requested.

Respectfully submitted,



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Attachment to Amendment filed July 25, 2005

Claim 12. (NEW) A scraper adapted for use in scraping frozen and hardened manure and other debris from concrete surfaces comprising:

a generally semicircular shaped metal scraping blade as view in plan having forwardly disposed end sections,

a crossbeam extending between and rigidly connected to said forwardly disposed end sections, a central portion of said crossbeam having spaced lower three-point hitch connections secured thereto and a support tower including an upper three-point hitch connection,

said blade being of uniform thickness non-hardened metal and having a lower scraping portion provided with a continuous flat metal surface for sliding contact with a concrete surface and for scraping material therefrom,

said lower scraping portion being configured so as to be perpendicular throughout its length to a flat concrete surface when in use,

rigid strut means extending downwardly and rearwardly from said support tower and secured to an upper portion of said blade whereby to rigidly support said blade against upward movement and to limit overflow of debris from said scraper,

the top of said scraper being otherwise open and unobstructed to the view of an operator on a towing vehicle.

Claim 13. (New) The scraper of claim 12, wherein the blade lower portion includes an arcuate wear strip member having a flat lower sliding edge surface.

Claim 14. (New) The scraper of claim 13, wherein the wear strip is formed from metal.

Claim 15. (New) The scraper of claim 13, wherein the wear strip member is bolted to the blade.

Claim 16. (New) The scraper of claim 13, wherein the wear strip is constructed from polyurethane.

Claim 17. (New) The scraper of claim 16 wherein the wear strip member is bolted to the blade.

Claim 18. (New) The scraper of claim 12, wherein the strut members comprise a plurality of downwardly and rearwardly diverging members secured to an upper portion of the blade.

Claim 19. (New) The scraper of claim 1 wherein said tower comprises a pair of laterally spaced upright members connected at their upper ends by a transverse connecting bar.

Claim 20. (New) A scraper for use in scraping hardened or frozen manure and other debris from abrasive concrete surfaces comprising:

an elongated non-hardened mild tempered steel scraping blade of generally semicircular open top configuration as viewed in plan having forwardly disposed end sections and a lower scraping portion,

a crossbeam extending between and rigidly connected to said forwardly disposed end sections,

three-point hitch connections comprising a pair of spaced lower hitch connections and a support tower having an upper hitch connection secured to a central portion of the crossbeam,

strut members extending downwardly and rearwardly from said tower and secured to an upper portion of said blade, the top of said scraper being otherwise open and unobstructed to the view of an operator of a towing vehicle, and

wherein at least the blade lower portion is configured so as to be perpendicular to a concrete surface being scraped and includes a continuous lower flat or blunt self-sharpening surface for sliding and gradual wearing away as it is positioned and moved in contact with said concrete surface.

Claim 21. (New) The scraper of claim 20, wherein said tower comprises a pair of laterally spaced upright members connected at their upper ends by a transverse connecting bar.

Claim 22. (New) The scraper of claim 21, wherein the strut members extend downwardly and rearwardly from said transverse connecting bar.

Claim 23. (New) A method of removing manure or other debris which might have become frozen to or otherwise strongly adhered to abrasive concrete surfaces, such as animal feed lots, said method comprising:

forming an elongated scraping blade from non-hardened mild tempered steel into a generally semicircular open top configuration as viewed in plan having forwardly disposed end sections and a lower scraping edge portion,

securing a crossbeam between and rigidly connected to said forwardly disposed end sections,

providing three-point hitch connections on the crossbeam including a pair of spaced lower hitch connections and a support tower having an upper three-point hitch connection,

securing downwardly and rearwardly extending strut members from said tower to an upper portion of said blade whereby the top of said scraper is otherwise open and unobstructed to the view of an operator of a towing vehicle,

arranging the blade so as to be perpendicular along its length to a concrete surface to be scraped and with a continuous lower flat or blunt surface for sliding self-sharpening contact with said concrete surface, and

mounting the scraper on a towing vehicle provided with a three-point hitch and towing the scraper over a concrete surface to remove and collect manure and other debris while allowing the non-hardened blade material to be worn away by the abrasive concrete surface.